

Claims

1. An apparatus comprising:
 - a pivotable park brake actuating handle;
 - a park brake bell crank rotatably mounted on a cross shaft;
 - a first arm extending radially from the park brake bell crank;
 - a connector between the handle and the first arm to transmit pivoting movement of the handle to rotational movement of the park brake bell crank; and
 - a second arm extending radially and laterally from the park brake bell crank; the second arm adapted to turn a left brake bell crank and a right brake bell crank, each of the left and right brake bell cranks secured to a brake camshaft, each camshaft having a cam lobe to apply a brake.
2. The apparatus of claim 1 further comprising an adjustment device between the second arm and at least one of the left and right brake bell cranks.
3. The apparatus of claim 1 further comprising a slot in the first arm, the slot pivotably engaging the connector.
4. The apparatus of claim 1 wherein one of the brake camshafts is rotatable with respect to the cross shaft.
5. The apparatus of claim 1 wherein one of the brake camshafts is secured to the cross shaft.
6. The apparatus of claim 1 wherein one of the left and right brake bell cranks comprises a main bell crank and a secondary bell crank secured to the cross shaft.
7. The apparatus of claim 1 further comprising a left brake pedal and a right brake pedal, the left brake pedal connected to the left brake bell crank, and the right brake pedal connected to the right brake bell crank.

8. The apparatus of claim 7 further comprising a brake pedal pivot shaft, the left brake pedal pivotable with respect to the shaft and the right brake pedal secured to the shaft.

9. An apparatus comprising:

a brake cross shaft having a park brake bell crank rotatably mounted thereto, a first brake camshaft rotatably mounted thereto, and a second brake camshaft secured thereto;

a pivotable park brake actuation handle; and

a single connector between the park brake actuation handle and the park brake bell crank, the handle pivotable to move the connector longitudinally to rotate the park brake bell crank, the park brake bell crank turning both the first and the second brake camshafts to apply both a first brake and a second brake.

10. The apparatus of claim 9 wherein the connector is a rod.

11. The apparatus of claim 9 further comprising an arm extending from the park brake bell crank to turn both the first and the second brake camshafts.

12. The apparatus of claim 11 further comprising an adjustment device on the arm to adjust the position of the park brake bell crank with respect to the first and the second brake camshafts.

13. The apparatus of claim 9 further comprising a first brake bell crank secured to the first brake camshaft, and a pair of second brake bell cranks secured to second brake camshaft and the brake cross shaft.

14. The apparatus of claim 13 further comprising a slot in the first brake bell crank secured to the first brake camshaft, the slot pivotably receiving a rod connecting to a brake pedal.

15. The apparatus of claim 13 further comprising a slot in the pair of second brake bell cranks secured to the second brake camshaft and brake cross shaft, the slot pivotably receiving a rod connecting to a brake pedal.

16. An apparatus comprising:

a first brake pedal pivotably connected to a first rod, the first rod connecting the first brake pedal to a first brake bell crank, the first brake bell crank secured to a first brake camshaft, the first rod being longitudinally movable in response to application of the first brake pedal to rotate the first brake bell crank and first brake camshaft to apply a first brake;

a second brake pedal pivotably connected to a second rod, the second rod connecting the second brake pedal to a second brake bell crank, the second brake bell crank secured to a second brake camshaft, the second rod being longitudinally movable in response to application of the second brake pedal to rotate the second brake bell crank and second brake camshaft to apply a second brake; and

a park brake actuation handle pivotably connected to a third rod, the third rod connecting the park brake actuation handle to a park brake bell crank, the park brake bell crank having an arm extending therefrom, the third rod being longitudinally movable in response to application of the park brake actuation handle to rotate the park brake bell crank sufficiently so that the arm pushes against and rotates the first brake bell crank and the second brake bell crank to apply both the first brake and the second brake.

17. The apparatus of claim 16 further comprising a brake cross shaft, and wherein the first brake bell crank, the first brake camshaft, the second brake bell crank, and the second brake camshaft all have internal diameters to fit over the brake cross shaft.

18. The apparatus of claim 17 wherein the second brake bell crank and the second brake camshaft are secured to the brake cross shaft.

19. The apparatus of claim 16 wherein the arm extends radially and longitudinally from the park brake bell crank.

20. The apparatus of claim 16 further comprising a cam lobe extending from each of the first and the second brake camshafts, each cam lobe abutting a projection on the outer diameter of a plate, each plate being rotatable to apply a brake.